



Certificate of Analysis

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Product Name: JHW 007 hydrochloride Catalog No.: 4351 Batch No.: 1

CAS Number: 202645-74-7

IUPAC Name: (3-endo)-3-[Bis(4-fluorophenyl)methoxy]-8-butyl-8-azabicyclo[3.2.1]octane hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{24}H_{29}F_2NO.HCI$

Batch Molecular Weight: 421.95
Physical Appearance: White solid

Solubility: DMSO to 100 mM ethanol to 100 mM

Store at -20°C

Batch Molecular Structure:

Storage:

2. ANALYTICAL DATA

TLC: $R_f = 0.7$ (Dichloromethane:Methanol:Ammonia soln. [9:1:0.05])

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 68.32 7.17 3.32 Found 68.46 7.22 3.33



Product Information

Print Date: Dec 14th 2011

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Description:

Dopamine uptake inhibitor; displays high affinity for the dopamine transporter (DAT) ($K_i = 25 \text{ nM}$ compared to 1330 and 1730 for NET and SERT respectively). Suppresses the effects of cocaine administration in a dose-dependent manner.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{24}H_{29}F_2NO.HCI$

Batch Molecular Weight: 421.95 Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Useage Info:

DMSO to 100 mM ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Kopajtic *et al* (2010) Dopamine transporter-dependent and -independent striatal binding of the benztropine analog JHW 007, a cocaine antagonist with low abuse liability. J.Pharmacol.Exp.Ther. **335** 703. PMID: 20855444.

Velaquez-Sanchez *et al* (2010) The high affinity dopamine uptake inhibitor, JHW 007, blocks cocaine-induced reward, locomotor stimulation and sensitization. Eur.Neuropsychopharmacol. **20** 501. PMID: 20413276.

Kristensen et al (2011) SLC6 neurotransmitter transporters: structure, function, and regulation. Pharm.Rev. 63 (3) 585.

